

#4

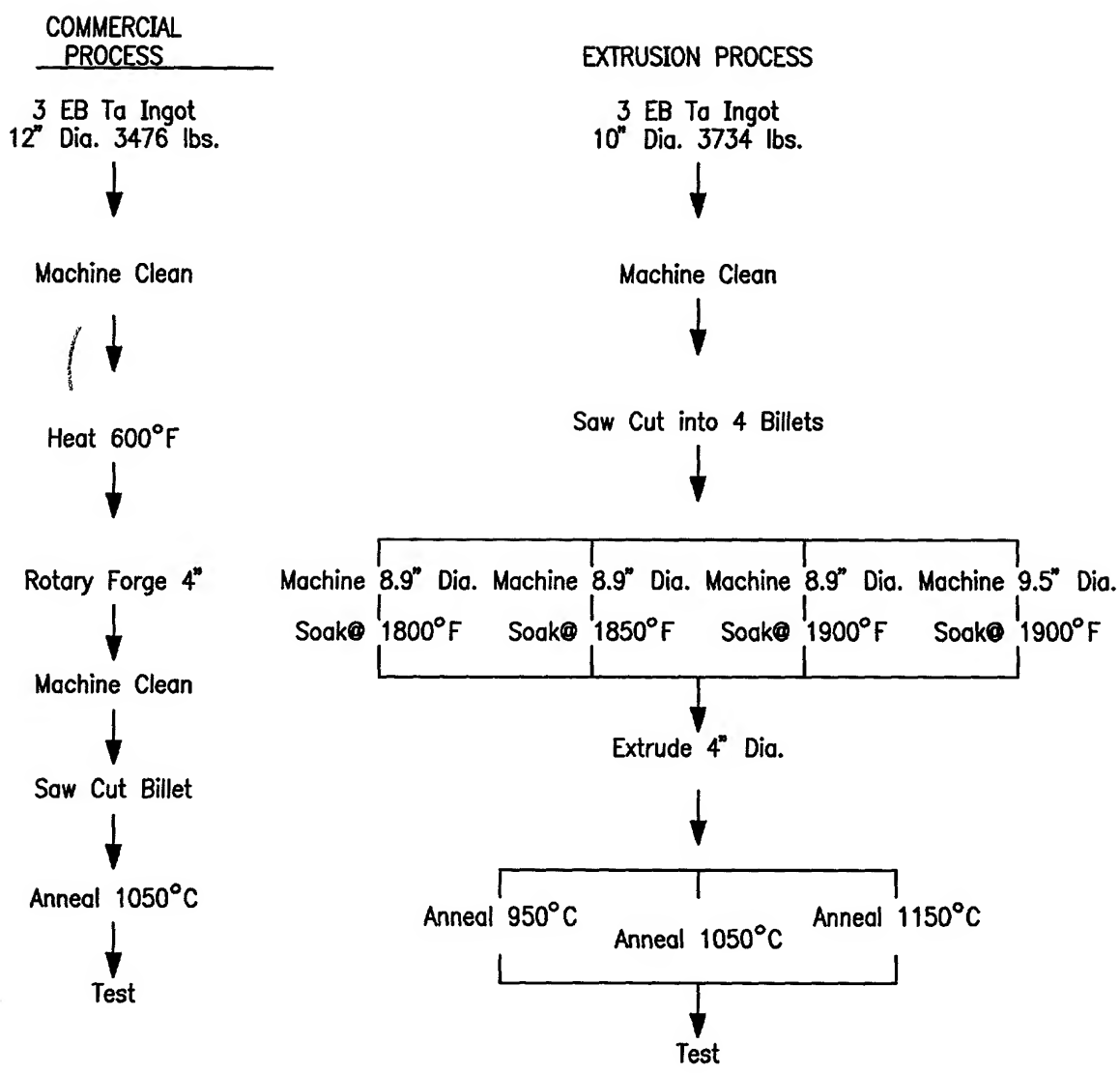


FIG. 1

PROCESS	SAMPLE LOCATION	950°C ANNEAL X 2 HOURS		
		Average Grain Size (μm)	Grain Size Range	Recrystallize (Percent)
Commercial Process	Center			
Commercial Process	Edge	46	<10-240	95
9.5"Ø, Extrude 1800°C	Center	40	<10-250	99
9.5"Ø, Extrude 1800°C	Edge	33	<10-240	80
9.5"Ø, Extrude 1850°C	Center	35	10-290	65
9.5"Ø, Extrude 1850°C	Edge	33	10-180	50
9.5"Ø, Extrude 1900°C	Center	35	<10-225	98
9.5"Ø, Extrude 1900°C	Edge	32	10-110	65
10.25"Ø, Extrude 1900°C	Center	28	<10-200	85
10.25"Ø, Extrude 1900°C	Edge			

FIG. 2(A)

PROCESS	1050°C ANNEAL X 2 HOURS			1150°C ANNEAL X 2 HOURS		
	Average Grain Size (μm)	Grain Size Range	Recrystallize (Percent)	Average Grain Size (μm)	Grain Size Range	Recrystallize (Percent)
Commercial Process	60	20-245	76			
Commercial Process	60	10-155	100			
9.5"Ø, Extrude 1800°C	45	10-150	95	60	10-150	100
9.5"Ø, Extrude 1800°C	35	10-135	100	75	10-200	100
9.5"Ø, Extrude 1850°C	65	<10-110	100	75	10-110	100
9.5"Ø, Extrude 1850°C	63	<10-110	100	62	10-145	100
9.5"Ø, Extrude 1900°C	32	10-180	100	86	10-145	100
9.5"Ø, Extrude 1900°C	32	<10-90	99	122	10-135	100
10.25"Ø, Extrude 1900°C	35	10-80	99	56	10-135	100
10.25"Ø, Extrude 1900°C	38	<10-110	100	70	10-160	100

FIG. 2(B)

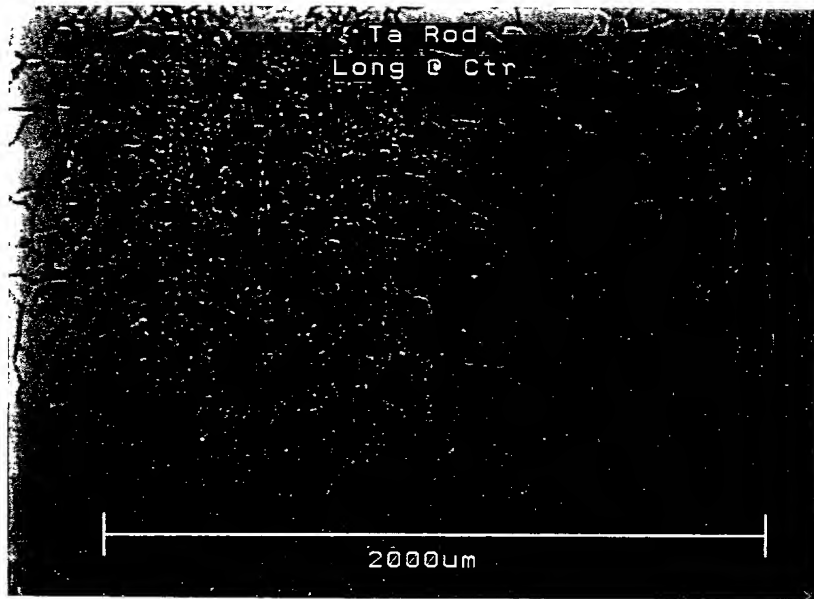


FIG. 3(A)

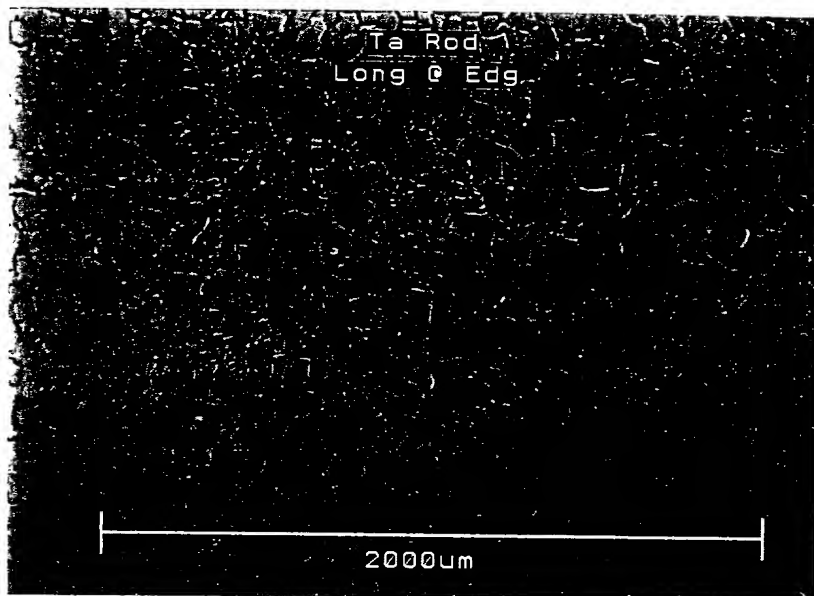


FIG. 3(B)

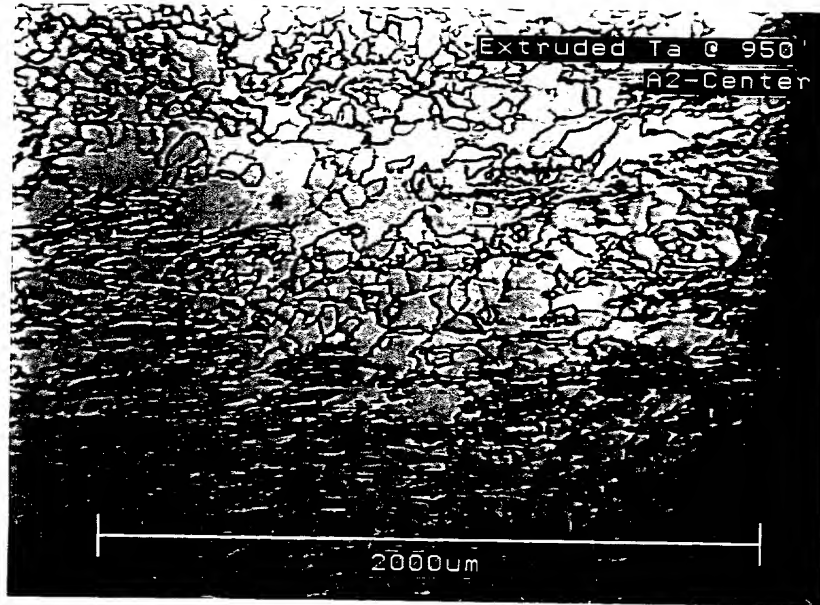


FIG. 4(A)

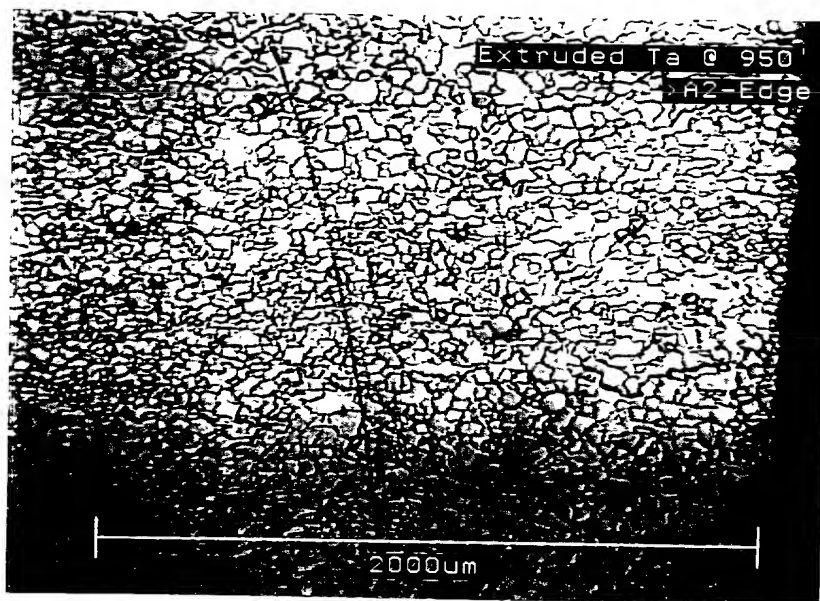


FIG. 4(B)



FIG. 5(A)



FIG. 5(B)

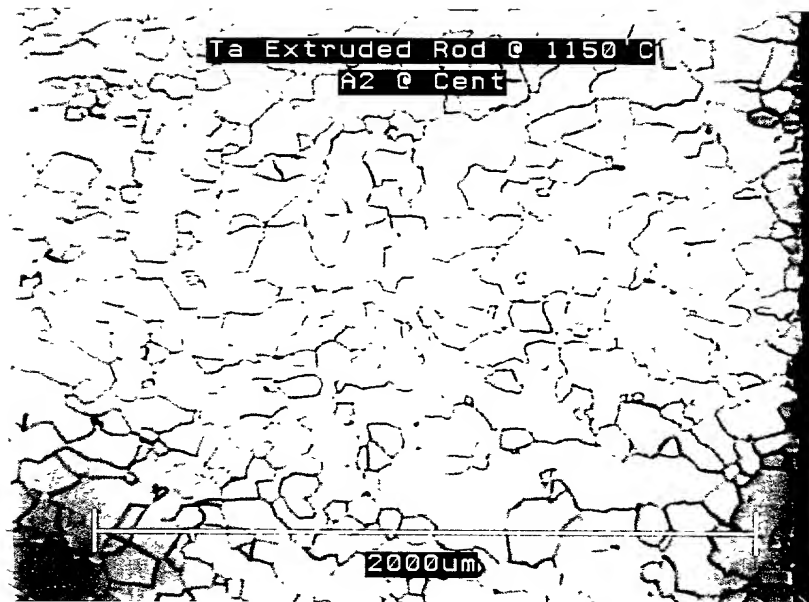


FIG. 6(A)

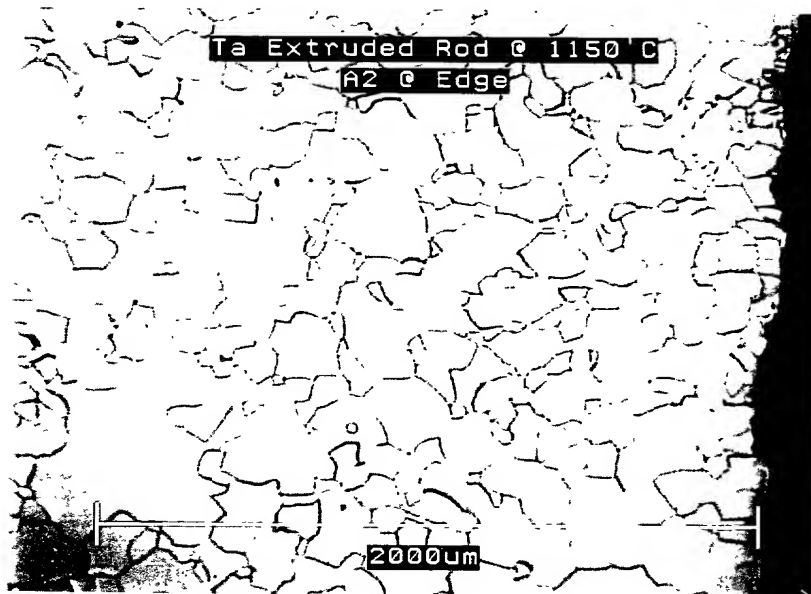


FIG. 6(B)



FIG. 7(A)



FIG. 7(B)

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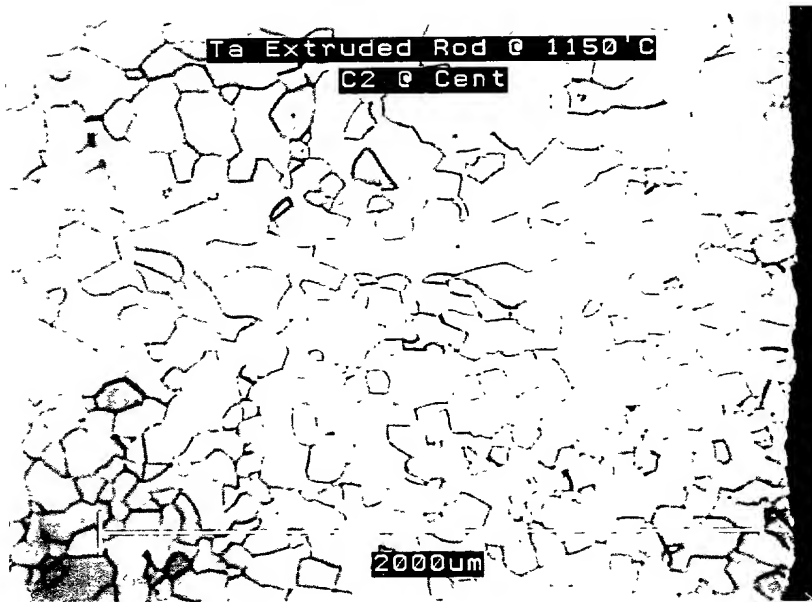


FIG. 8(A)

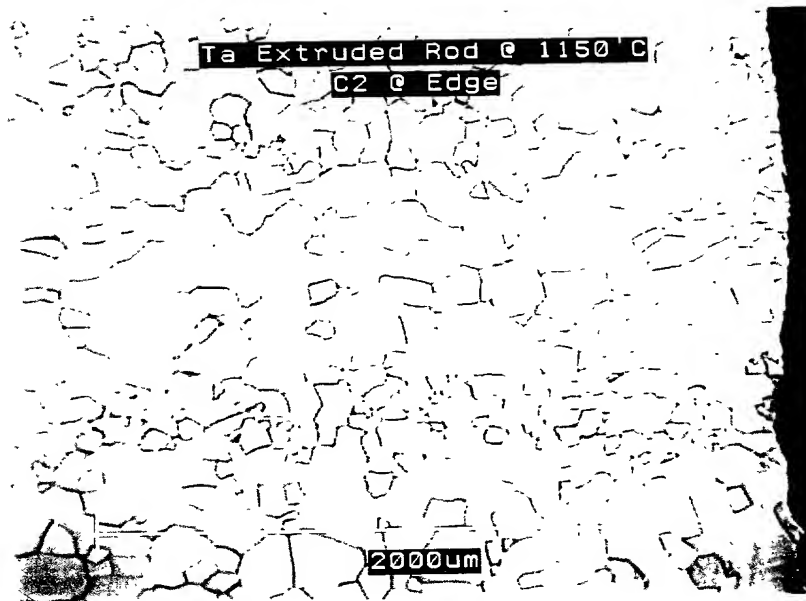


FIG. 8(B)

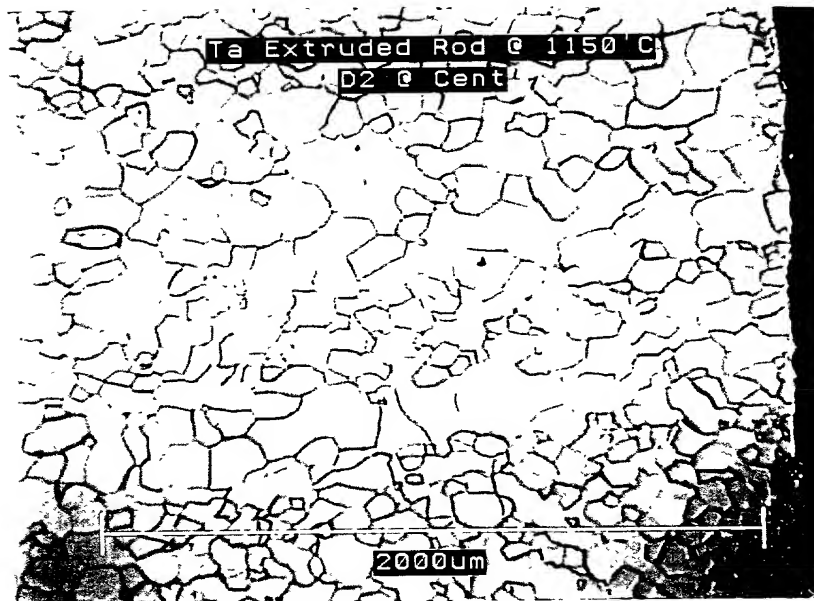


FIG. 9(A)

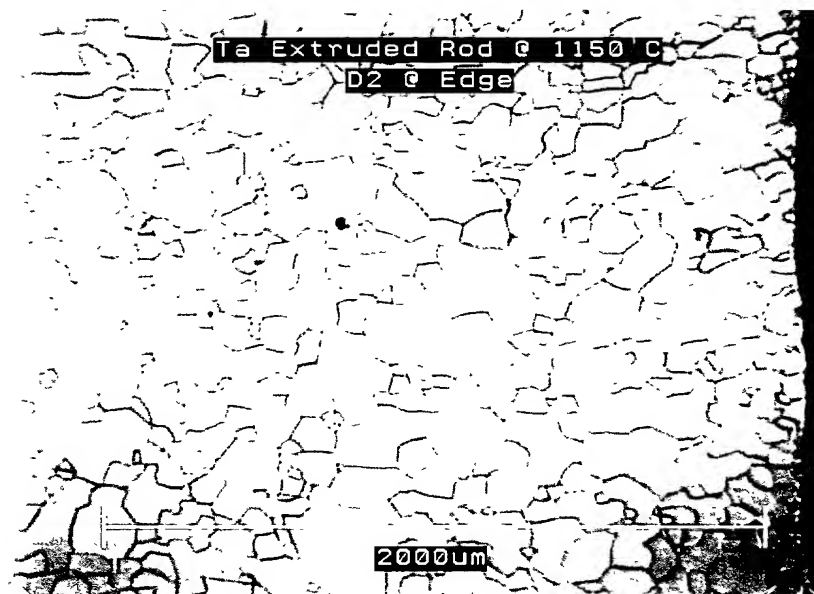


FIG. 9(B)